

RADIOCHEMOTHERAPY IN COMBINATION WITH REGIONAL HYPERTHERMIA IN PRE-IRRADIATED PATIENTS WITH RECURRENT RECTAL CANCER

**Milani V.^{1,2}, Pazos M.³, Rahman S.¹, Schwarz S.³, Wilkowski R.³, Schaffer P.³,
Dühmke E.³, Schaffer M.³, Issels R.^{1,2}**

¹ LMU-Klinikum Großhadern, Medizinische Klinik III, CCG Hyperthermia, Munich, Germany

² GSF-Hämatologikum, IMI-Institute of molecular immunology, Munich, Germany

³ LMU- Klinikum Großhadern, Radiotherapy and Radiooncology, Munich, Germany

Background

Recent experience has shown that re-irradiation combined with chemotherapy in patients with local recurrence of rectal cancer represents an efficient treatment but comorbidity depending on dose and field size of re-irradiation may be critical. This study was conducted to assess toxicity, tumour control and long-term results of re-irradiation combined with chemotherapy and regional hyperthermia (RHT) in pre-treated patients with recurrent rectal carcinoma.

Methods

From 08/2000 until 07/2005, 24 patients (median age 59 [range 39-73], M:F=18:6) with recurrent carcinoma of the rectum were enrolled. All patients had received previous radiation combined with a 5-FU-based chemotherapy (22 pts) or radiation alone (2 pts), with a median dose of 50,4 Gy [range: 38,0- 59,4 Gy]. At time of recurrence 22 patients were considered irresectable. The median interval between prior radiochemotherapy and re-irradiation was 34 months [range: 11,3-112,4 mo]. The median dose of re-irradiation was 39,6 Gy [range: 30,0-45,0 Gy]. The re-irradiation was combined with chemotherapy (5-FU 350 mg/m²/24 h) as continuous infusion over 5 days per week and biweekly RHT (BSD-2000 System). The median number of hyperthermia sessions was 8 [range: 3-11 RHTs]. The main endpoints were time to second local progression (TTLP2) and progression free survival (PFS). 21 Patients were evaluable for response.

Results

Progression arrest occurred in 19 patients (90%) (0 CR, 1 PR and 18 NC) but 3 patients progressed (3 PD)(10%). No patient underwent surgical resection for residual disease. Symptomatic control of pain was achieved in 17 patients (81%). No severe toxicity (grade 4) was observed. With a median follow-up of 27 months [range: 17-45 mo], the median TTLP2 was 13 months [95% CI: 8-16] and the 1-year-LPFS was 53% [95% CI: 33-73%]. The overall 1-year and 2-year survival rates were 84% [95% CI: 68-99%] and 54% [95% CI: 29-29%] respectively. At present 12 patients are alive.

Conclusions

Regional hyperthermia combined with re-irradiation and chemotherapy provides in a significant proportion (90%) of patients local tumour control and is well tolerated. Pain relief is achieved in more than 80% of the patients with a median duration of 13 months. This regimen can be recommended for salvage therapy in this otherwise unfavourable group of patients.